

# GROUNDBREAKING CLIMATE-SMART AGRICULTURAL MODEL EMPOWERS RURAL WOMEN IN MAHARASHTRA

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*IDRC Grant/ Subvention du CRDI: 108754-001-CDKN knowledge accelerator for climate compatible development*

## Groundbreaking climate-smart agricultural model empowers rural women in Maharashtra

### Key findings

- A multi-pronged approach that includes agricultural techniques, livelihood diversification, social and cultural factors and innovative financial models can strengthen the position of women as farmers.
- Strengthening the capacity of women farmers can lead to the improved socio-economic status of their households, therefore building the resilience of their families to respond to climate change impacts.
- Partnering with governments, experts, corporates and community stakeholders can help in the successful implementation of climate-smart agricultural approaches.
- The project provided training in key resilience practices, loans and knowledge exchange between farms. This approach builds women's capacity to practise sustainable agriculture and water conservation to help them ensure enough food and income for their households.

### Introduction

Located in central-western India, the Marathwada region in the state of Maharashtra is recognised as one of India's most drought-prone areas. Marginal farmers in this region grow cash crops such as soy and cotton, which require more water, chemical fertilisers and pesticides. This damages their land, health and the environment in the long run. Moreover, women in this region, despite being actively engaged in agriculture, have no decision-making role on their farms and no support from government extension programmes to enhance their capacity as farmers. To address these issues, Swayam Shikshan Prayog (SSP) piloted its women-led climate-smart agriculture model in 2014, and scaled it up in the following years.

### Approach

Groundwater is the main source of irrigation across India. SSP's climate-smart agriculture model for women farmers promotes sustainable-farming techniques, diversifies livelihoods through agriculture-allied businesses, promotes consumption and marketing of nutritious, locally-grown foods, and improves water management systems. As a result, the cost of farming has fallen, and household food security and soil fertility have improved. Moreover, women farmers also helped in afforestation, increasing land for pasture, and improving groundwater resources. They have also increased their incomes by selling surplus food crops and undertaking other businesses, such as livestock rearing, dairy production and seed processing.

### Methodology

Women were encouraged to ask their families to lend them part of their land for the cultivation of vegetables, fruits, local grains and pulses. SSP supported women farmers through the Huairou Commission's Community Resilience Fund, providing finance for the adoption of climate-smart agricultural practices. This revolving fund promoted low-input based agriculture, multiple cropping with water-efficient plant varieties and germination of local seeds. Local seed varieties were used to grow traditional produce, using biopesticides and biofertilisers. Mixed and intercropping cycles ensured that the soil fertility was replenished for each season. The use of simple drip irrigation, sprinklers, farm ponds and tree plantations formed part of an efficient water management system.



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Women farmers make vermicompost using earthworms.

They grew both seasonal and perennial vegetables, and the borders of the plot were lined with fruit trees, such as guava and pomegranate. The model led to increased productivity over two years. Women also secured drip-irrigation equipment and other equipment at subsidised rates from the government, further reducing water consumption.

Additional training in sales and marketing strategies helped women farmers to sell their surplus produce, raising their incomes by 25 percent.<sup>1</sup> They were trained by Krishi Vigyan Kendras (agricultural extension centres) in techniques of soil testing, water testing, seed preservation, use of drought-resistant seeds and land mulching. The trained women began germinating their own local seeds, which were used to cultivate more than 200 acres of land. This resulted in substantial savings, as seed prices had increased three-fold over the past few years.

## Results

Since 2015, 41,000 women farmers have adopted this model. Around 30,000 acres of dry land are managed using organic farming methods and water and soil conservation measures. There has been a 25 percent increase in crop yield due to the use of mixed-cropping methods and organic-inputs.<sup>2</sup> Women-farmer households have saved US\$497 per family per year due to consumption of food from their farms.<sup>3</sup>

SSP has organised the women farmers in producer groups and collectives, and has adopted a market-based approach that encourages first-time access for marginal women farmers so they get competitive prices for their yield. The climate-smart agriculture model brought women to the forefront and repositioned them as farmers (instead of labourers) and bearers of knowledge. This enabled them to take informed decisions related to what to grow, what to consume and how much to sell.

## Success factors

The project provided **training in key resilience practices**, while other partners provided loans and helped to facilitate knowledge exchange between farms. This approach **builds women's capacity** to practise sustainable agriculture and water conservation to help them ensure enough food and income for their households. Other success factors included:

- A **cadre of 500 women-farmer leaders** (also known as community resource persons) was created for knowledge transfer
- A **mentoring scheme** was promoted to assist other women farmers to practise and replicate this model.

- A **community-resilient fund** was set up to provide loans and financial support to women-farmers for business, agriculture, livestock, water, amongst other things.
- **Lobbying and advocacy** through grassroots leaders and **dialogues with government authorities** resulted in women farmers obtaining access to agriculture schemes and benefits.

## Learning

A multi-pronged approach that includes agricultural techniques, livelihood diversification, social and cultural factors and innovative financial models can strengthen the position of women as farmers. Strengthening the capacity of women farmers can lead to the improved socio-economic status of their households, therefore building the resilience of their families to respond to climate change impacts. Partnering with governments, experts, corporates and community stakeholders can help in the successful implementation of climate-smart agricultural approaches.

## Way forward

The climate-smart agriculture model has been scaled up in Maharashtra to reach more than 60,000 women farmers in 810 villages across six drought-prone districts.<sup>4</sup> Further, SSP implemented the Mahila Kisan Sashaktikaran Pariyojana (MKSP) initiative from 2016 to 2019 with the Government of Maharashtra, to support more than 21,000 women farmers in adopting improved agricultural practices in two districts in the state. The model has been replicated in the states of Bihar and Odisha. Peer learning exchanges at state and national levels have been organised to transfer knowledge of climate change adaptation practices to new communities.

## Endnotes

1. The World Bank. (2015). 'Community-led partnerships for resilience'. Retrieved from: [https://www.gfdrr.org/sites/default/files/publication/Community\\_led\\_partnership\\_JUNE24.pdf](https://www.gfdrr.org/sites/default/files/publication/Community_led_partnership_JUNE24.pdf)
2. 'Women-led climate resilient farming' model.' (no date). UN Sustainable Development Goals partnerships platform. Retrieved from: <https://sustainabledevelopment.un.org/partnership/?p=31017>
3. Ibid.
4. Ibid.

## Contact

We thank Ms Prema Gopalan, Swayam Shikshan Prayog (SSP), for her valuable review of this case study. For further information on SSP, e-mail: [premagab@gmail.com](mailto:premagab@gmail.com)

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